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development of the theory, whether great or small. For many years the theory seemed to belong especially to German mathematicians; but the author believes that he has overlooked little of importance, and that he has been impartial in his treatment of the subject.

An Introduction to the Logic of Algebra. By ELLERY W. DAVIS. New York, Wiley. 8°. \$1.50.

As the author puts it, this book is precisely described by the title, and is mainly the outgrowth of a conviction that the logic of algebra is a very much neglected study. We believe it to be the conviction of many teachers of mathematics that one trouble with students in failing to understand the subject is that they look too far. Each step in mathematical reasoning is simple in itself, and the difficulty comes in in deciding what shall be the next step in any process of mathematical reasoning.

Professor Davis, who is, by the way, the professor of mathematics in the University of South Carolina, has certainly produced a unique book, and one that will be of great interest to teachers of algebra; but the question naturally occurs to one that possibly he may have made to appear complicated what heretofore has been more or less readily accepted by students. It is quite true that the processes of algebra are simple and easily taught, and that they are taught mainly for the sake of the processes rather than for the sake of the discipline,—that is, they are taught for the uses to which they may be put,—and it is to be feared that if too much attention is paid to the reasoning which underlies the processes, which has been generally slurred over or even absolutely ignored, the student may think there is more in it than there really is, and become correspondingly confused.

AMONG THE PUBLISHERS.

THOSE having young persons in their charge whom they would interest in science should write to Gustav Guttenberg, care of the Central High School, Pittsburgh, Penn. Mr. Guttenberg carries on by correspondence classes in the study of mineralogy, and has just issued the "third grade," as he calls it, of his "Course." This pamphlet is especially devoted to the determination of ores. The methods of determination by blowpipe analysis are treated of in the first part of the book; and the closing chapters are devoted to the determination of the minerals in Collection 3, so called, which contains thirty or forty specimens sent out in a neat wooden box about seven inches square by an inch and a half deep. Those older persons who are anxious to develop some hobby will also find something of interest in Mr. Guttenberg's courses.

—Joseph M. Wade, Columbia Street, Dorchester, Mass., in his prospectus of *Occultism and Theosophy*, says, "This is the name of our new magazine, which is the outgrowth of *Truths of Nature*, and practically a continuation of that magazine. With increased experience, the editorial lines will be more carefully drawn, as it is intended that the magazine shall aid the earnest seeker after nature's truths, and point the way to the attainment of a pure, spiritual life, as defined in nature's teachings. It will define theosophy proper as against organized sectarianism, and not enter the field of the spiritual and 'Theosophical' papers now published; but it will chronicle and explain, as far as possible, the higher phenomena of spiritual life. It will point the way, and give the key for the development of the spiritual man as against all illusions, and teach absolute peace under all conditions."

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What the exact meaning of this may be is left to our readers to decide.

—The October number of the *New England Magazine* is first and foremost a cotton centennial number. The two principal illustrated articles are on "Pawtucket and the Slater Centennial" and "The Cotton Industry in New England." The agricultural interest, to which so much attention was paid in the last number of this magazine, receives further attention in three articles in the present number; a general article on "Agricultural Education,"

by Mr. Reeve; an illustrated article on the Massachusetts Agricultural College, by President Goodell of the college; and a story entitled "John Toner's Scheme."

—The current (Oct. 4) issue of *Architecture and Building* is devoted to the study of schoolhouse architecture from both the point of view of the teacher and the architect. The issue contains twenty-one different designs by architects who have achieved distinction in designing buildings for school purposes. The number contains sixteen double-page plates.

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